

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
6 May 2005 (06.05.2005)

PCT

(10) International Publication Number
WO 2005/040213 A1

(51) International Patent Classification⁷: C07K 14/755,
C12N 15/12, 15/11, 15/67

(21) International Application Number:
PCT/EP2004/011445

(22) International Filing Date: 13 October 2004 (13.10.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
03023637.6 16 October 2003 (16.10.2003) EP

(71) Applicant (for all designated States except US): ZLB
BEHRING GMBH [DE/DE]; P.O. Box 1230, 35002
Marburg (DE).

(72) Inventors; and

(75) Inventors/Applicants (for US only): HAUSER, Hans-Peter [DE/DE]; Feuerdornweg 6, 35041 Marburg (DE). PLANTIER, Jean-Luc [FR/FR]; 5, Rue de Bouteiller, F-69520 Grigny (FR). DUCASSE, Cecille [FR/FR]; 39, Quai St-Vincent, F-69001 Lyon (FR). NEGRIER, Claude [FR/FR]; 1, Allée Louis Vernin, F-69540 Irigny (FR).

(74) Common Representative: ZLB BEHRING GMBH;
Patents & Licenses, P.O. Box 1230, 35002 Marburg (DE).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:

— of inventorship (Rule 4.17(iv)) for US only

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: MODIFIED cDNA FOR HIGH EXPRESSION LEVELS OF FACTOR VIII AND ITS DERIVATIVES

(57) Abstract: The present invention relates to modified DNA sequences coding for biologically active recombinant human factor VIII and its derivatives, recombinant expression vectors containing such DNA sequences, host cells transformed with such recombinant expression vectors, and processes for the manufacture of the recombinant human factor VIII and its derivatives. The invention also covers a transfer vector for use in human gene therapy which comprises such modified DNA sequences. The present invention relates to modified DNA sequences coding for biologically active recombinant human factor VIII and its derivatives, recombinant expression vectors containing such DNA sequences, host cells transformed with such recombinant expression vectors, and processes for the manufacture of the recombinant human factor VIII and its derivatives. The invention also covers a transfer vector for use in human gene therapy which comprises such modified DNA sequences.

WO 2005/040213 A1